

SUMMARY

The Arctic is at the forefront of climate change, warming more than twice as fast as the rest of the planet. Climate-change induced warming of the marine environment will result in drastic changes in Arctic marine ecosystems, thereby significantly affecting Indigenous Peoples who depend on Arctic ecosystems for their survival. In light of these developments, strengthening the resilience of Arctic socio-ecological systems (SES) is of paramount importance.

The term SES conceptualises the interconnected and dynamic relationship between communities and the environment on which they depend. The case of bowhead whaling is an example of an SES. The bowhead whale (*Balaena mysticetus*) is the only endemic Arctic baleen whale species and is highly significant to Indigenous communities in Alaska, Inuit Nunangat (Canada) and Kalaallit Nunaat (Greenland), who depend on bowhead whaling for cultural, spiritual and nutritional reasons. Climate change is a considerable stressor for bowhead whaling SES: warming waters reduce the size of the bowhead whales' habitat and simultaneously increase the risk for ship strikes due to receding sea ice. This has significant ramifications for the communities that depend on bowhead whaling and gives rise to the question of how resilience of these SES can be maintained and strengthened.

The concept of resilience describes the capacity of a system to adapt, persist and transform, and thereby cope with a stressor, such as climate change. Research on resilience has identified a multitude of actions that can contribute to maintaining and strengthening resilience to climate change. However, the role of international law in this process remains largely overlooked. Based on the case of bowhead whaling, this thesis analyses how international law can contribute to the climate resilience of SES in the Arctic. After constructing an evaluative framework based on SES resilience theory in the context of bowhead whaling, the thesis systematises the applicable legal instruments pertaining to four different areas of law: The Law of the Sea, International Climate Change Law, Other International Environmental Law and International Human Rights Law. The thesis subsequently analyses how the applicable instruments contribute to resilience, investigates possible barriers to resilience in these instruments, and suggests ways in which they can be mitigated.

The thesis shows that the applicable instruments provide several mechanisms that can contribute to the resilience of both ecosystem- and social system components of SES. Thereby, the applicable legal framework offers significant support for the capacity of SES to adapt and transform, if implemented adequately. They also highlight the importance of international human and Indigenous rights in mitigating the shortcomings of other areas of international law from a resilience perspective. The thesis further identifies several mechanisms in international environmental law that support actions for social and ecological resilience, and thereby the resilience of SES as a whole. In many cases, the legal provisions leave significant room for states to give effect to their obligations, which contributes to the systems' adaptive capacity. However, this significant room is also one of the barriers to resilience that the analysis has uncovered. While the flexible nature of international environmental law is beneficial for adaptive capacity, legal support for persistence is lacking. Clear and enforceable standards that protect the marine environment and ensure its persistence are therefore urgently needed to ensure that SES can not only adapt, but also persist in face of climate change.

The thesis concludes that international law plays an important role in building and maintaining climate resilience in bowhead whaling SES, as the applicable international instruments provide several avenues through which resilience can be strengthened. Thus, enhancing state action within the existing framework alongside stronger environmental protection mechanisms is necessary to maintain and strengthen bowhead whaling SES resilience to climate change.